

Valley Forge Observation Tower  
(Mount Joy Observation Tower)  
Summit of Mount Joy, Inner Line Drive  
Valley Forge National Historic Park  
Valley Forge  
Montgomery County  
Pennsylvania

HAER No. PA-114

HAER  
PA,  
46-VALFO,  
4-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record  
Mid-Atlantic Region  
National Park Service  
U. S. Department of the Interior  
Philadelphia, Pennsylvania 19106

HISTORIC AMERICAN ENGINEERING RECORD

VALLEY FORGE OBSERVATION TOWER  
(Mount Joy Observation Tower)

HAER No. PA-114

Location: Summit of Mount Joy, Inner Line Drive  
Valley Forge National Historical Park  
Valley Forge, Montgomery County, Pennsylvania

UTM: 18.461320.4437730  
Quad: Valley Forge

Designer: Emmor B. Cope

Builder: Variety Iron Works of Cleveland, Ohio

Date of Construction: 1906

Previous Owner: Commonwealth of Pennsylvania

Present Owner: Mid-Atlantic Region  
National Park Service  
143 South Third Street  
Philadelphia, Pennsylvania 19107

Original Use: Observatory

Present Use: Presently closed

Significance: The Valley Forge Observation Tower is an example of facilities built in the late nineteenth and early twentieth century to provide overviews of historical and scenic areas. The tower was built on the summit of Mount Joy, the highest point in Valley Forge State Park. It was based on plans and specifications prepared by Colonel Emmor B. Cope, engineer with the Gettysburg National Military Park, where four similar towers had been constructed in 1895-1896. The "observatory" was intended to provide a view of the historic campground where George Washington and the Continental Army spent the winter from December 19, 1777 to June 19, 1778.

Project Information: This documentation was undertaken in the fall of 1986 and the spring of 1987 to mitigate the demolition of this historic tower.

Historian: Joan Marshall-Dutcher, Research Historian  
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The Valley Forge Observation Tower was built on the summit of Mount Joy in 1906. Intended to provide visitors to Valley Forge State Park with a view of the area where George Washington and the Continental Army encamped from December 19, 1777 to June 19, 1778, the "observatory" was authorized by the Valley Forge Park Commission in 1905. Apparently there were some problems, for the Executive Committee reported in August that the contractor would not agree to terms. In October, the contract was awarded to the Variety Iron Works of Cleveland, Ohio, for \$4,575.00, based on the plans and specifications of Colonel Emmor B. Cope, engineer with the Gettysburg National Military Park Commission. In 1895, the Variety Iron Works had constructed four steel towers at Gettysburg, based upon a design by Cope. Three of these towers remain, although the top has been removed from one (see appendix showing architectural drawings of the Gettysburg tower).

Emmor B.. Cope was born on July 23, 1834. He served in the Engineer Corps, Army of the Potomac, from June 3, 1861 to June 20, 1865, and, at Gettysburg, he helped plan the defense of the Round Top. From 1895 until his death in 1927, he was the right-hand man for the Gettysburg National Park Commission, supervising construction at the park. The commission chairman from 1893 until his death in 1922 was John Page Nicholson, who also served as trustee, vice president of the Valley Forge Park Commission from October 2, 1903 until his death.

According to Eric Johannesen, Preservation Officer for the Western Reserve Historical Society in Cleveland, Ohio:

"The Variety Iron Works Company was first listed in the Cleveland city directory in 1867. In 1872 the officers were C. F. Olds, F. L. Chamberlain, and Lucius M. Pitkin, who remained with the company for many years. The works was located on Scranton Road at the Erie Railway tracks on the west side of the Cuyahoga River in the industrial valley of Cleveland, where the company made boilers, tanks, heavy sheet-iron, fire grates, pulleys and hangers. By the 1890s, when it built the Gettysburg observation tower, a second works had been opened on the east side of Cleveland on the Pennsylvania Railroad, for the fabrication of bridges, roofs, iron and steel buildings, architectural work, and hoisting and conveying machinery. At that time Cleveland was the leading center in the country for the production of heavy machinery. The Hamilton Avenue buildings of Number 2 works are still partially intact. Before 1912 the company became the Variety Iron and Steel Works, J. H. Webster, president. The company remained active throughout the 1920s, but was apparently a victim of the Depression, since it does not appear in the city directory of 1934.

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The Valley Forge tower is associated with the interpretation of the park. It is an example of the type of facility constructed around the turn of the century in areas of historical significance, usually battlefields. Although no battle was fought at Valley Forge, the placement of the tower on the highest point in the park did provide visitors with an overview of the historic campground.

Documents detailing repair work or alterations to the tower over the years have not been located. In 1943, the Valley Forge Park Commission did note that funds for repairs of the tower were not available. The report indicates that the tower received 799,381 visitors between January 1, 1939 to January 1, 1943.

In November 1971, park superintendent Horace Willcox addressed the question of what should be done with the tower. He noted numerous problems with the structure, including the expense of proper maintenance and the distractions of "institutions, factories, and highways," which caused park features to appear small and insignificant when viewed from the top. Willcox felt that the tower did not serve an interpretive function.

On July 4, 1976, legislation was signed which transferred Valley Forge State Park from the Commonwealth of Pennsylvania to the National Park Service. Following an engineering study in 1979, the tower was condemned and closed to visitors. Since that time, it has further deteriorated.

The tower is a four-legged steel structure with a stairway to a roofed observation platform mounted at the top. Supported on four concrete bases, the tower is 24 square feet at the base. The observation platform is 20 square feet and the platform height is 72-1/2 feet from ground level. It is 88 feet from the base of the tower to the point of the roof. The tower is constructed of rivetted angles in four tiers; diagonal tie rods with turn-buckles link all panel points. The roof is corrugated iron supported by four steel hip rafters from the corners of the tower to a plate at the apex and three sheets of purlins. Each corner has curved iron brackets to support the eaves. A steel stair runs within the perimeter of the tower, beginning at the foot of the southeast corner and ending on the same east side run at the southeast corner. The stair runs on all four sides with corner landings. Interior corners of the platforms are suspended by rod hangers from the main observation platform above and the outer corners are supported by perforated curved plates.

The stair treads are steel. The balustrade on both sides of each flight of stairs and at the platforms consists of perforated sheet metal hung on pipe and surmounted by two horizontal metal pipes. A light mesh is attached to these pipe rails above the sheet metal balustrade on the observation platform only. The platform has a sheet metal floor of diamond plate. A four-segmented bench of perforated sheet steel, forming three quarters of a circle, is set in the center of the platform. It is supported by three radial bars attached to a steel pedestal with a circular plate atop on which is inscribed the aerial distance to towns within a 20-mile radius.

No measured drawings of the Valley Forge Observation Tower have been located. It is probable that none exist. In 1968, National Park Service architect John Ingle prepared drawings of the Oak Ridge Observation Tower at Gettysburg, Pennsylvania. Since both towers were based on plans and specifications prepared by Colonel Emmor B. Cope and are virtually identical. The one chance made in the design is the stairs; the stairs of the Valley Forge tower were constructed "opposite hand" from Oak Ridge.

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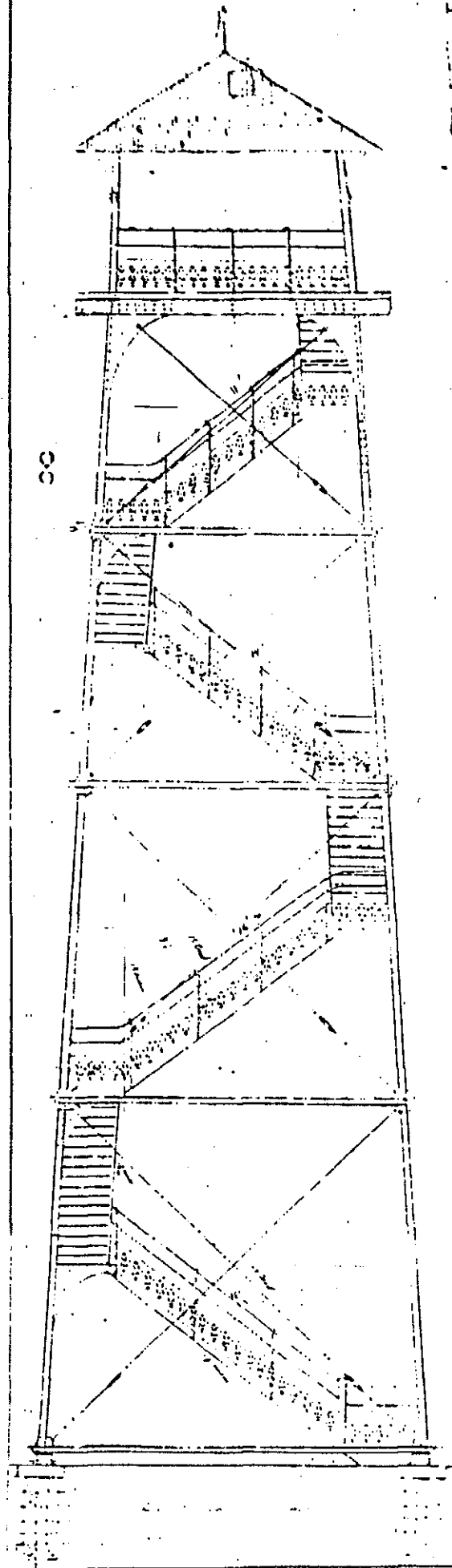
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